

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

In re Application of:

Endres, et al.

Serial No.: 10/581,655

Filed: May 31, 2006

For: Data Carrier and Method
for Manufacturing the Same

Art Unit: 3725

Examiner: Grabowski, Kyle
Rober

APPEAL BRIEF

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REAL PARTY IN INTEREST

Giesecke & Devrient GmbH of Germany.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1 through 15 and 19 remain pending in the application, and stand rejected. The rejection of claims 1 through 15 and 19 is appealed. Claim 1 is amended to correct a typographical error.

Claims 16 through 18 were withdrawn.

STATUS OF AMENDMENTS

Claim 1 is amended to correct a typographical error.

SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 1 is the only independent claim involved in the appeal. This claim covers a multilayer security element having a metal layer with identifiers and where the metal layer is disposed between two translucent coating layers. The metal layer (page 6, ll. 11-12, Figure 2, item 20) has identifiers (page 6, ll. 11-12, Figure 2, item 16) introduced by a laser beam through a local transformation of the metal into a transparent or translucent modification. The metal layer is disposed between two translucent coating layers (page 6, ll. 19-21, Figure 2, items 26 and 28) whose transmittance in the visible spectral range is less than 10% but whose transmittance in the visible spectral range is sufficient to allow viewing of the metal layer and identifiers under reflected light such that the

identifiers display a watermark effect in which they appear, when viewed in transmitted light, as a positive image, and when viewed in reflected light, as a negative image.

Claim 2 adds further restriction on the transmittance of the translucent coating layer in the visible spectral range of less than 5%.

Claim 4 adds further restriction that the identifiers are introduced through ablation.

Claim 3 requires that the translucent coating layers are colored, and appear white or pastel-colored in reflected light.

Claim 6 requires that the translucent coating layers exhibit no appreciable absorption at the wavelength of the laser radiation used for labeling.

Claim 7 requires that the identifiers comprise personal data, such as a signature, a birth date, or a portrait.

Claim 8 requires that the identifiers comprise data relating to the data carrier, such as a serial number, or a validity period.

Claim 9 requires that the identifiers are present in screened form.

Claim 10 requires that the metal layer is vapor deposited or imprinted on one of the translucent coating layers.

Claim 11 requires that the metal layer is vapor deposited or imprinted on a transparent intermediate layer disposed between the translucent coating layers.

Claim 12 requires that one or both of the translucent coating layers is provided with a protective layer that is transparent at least in the area of the identifiers.

Claim 13 covers a data carrier comprising a value document, such as a banknote, identification card or the like, having a security element according to claim 1.

Claim 14 adds further restriction that the data carrier according to claim 13 has a security element embedded in the interior of the data carrier or applied to the surface of the data carrier.

Claim 15 adds further restriction that the data carrier is provided with one or more further security features.

Claim 19 adds further restriction that the further security features comprise luminescent, magnetic or electrical substances, or optically variable structures, such as holographic structures.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The rejection of claims 1 through 4 and 6 through 15 as anticipated by Scantlin, Coded Identification Card, U.S. Patent 3,802,101 (Apr. 9, 1974).

The rejection of claims 1 through 4 and 6 through 15 as obvious over Scantlin, Coded Identification Card, U.S. Patent 3,802,101 (Apr. 9, 1974).

The rejection of claim 19 as obvious over Scantlin, Coded Identification Card, U.S. Patent 3,802,101 (Apr. 9, 1974) in view of Hurier, Security Label, U.S. patent 5,651,615 (Jul. 29, 1997).

ARGUMENT

The rejection of claims 1 through 15 and 19 based on anticipation by Scantlin should be reversed

Each of the issues addressed below revolve around the Examiner's assertion that the claims are anticipated. 35 U.S.C. § 102 provides the conditions for patentability, and states:

A patent may not be obtained if the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Under the 102 rejection, the Examiner asserts that Scantlin discloses a security element comprising an aluminum core sheet (Scantlin's item 8) with identifiers in the form of patterns of holes (Scantlin's item 6), in which the metal layer is disposed between translucent coating layers (Scantlin's items 10 and 12) which have sufficiently low transmittance to obscure the coded regions. The Examiner asserts that Scantlin does not disclose a "watermark effect" but that the structure of Scantlin can perform this effect. Furthermore, the Examiner asserts that Scantlin does not disclose the coating layers 10 and 12 having a visible spectral range of less than 10% or more specifically less than 5%, but instead asserts that Scantlin's structure is "at least capable of performing this function." Also, the Examiner asserts that in Scantlin, the transmissivity is positive and allows some light and the transmittance is sufficient for viewing the metal layer and identifiers in reflected light.

Scantlin does not disclose all of the claimed limitations. This is admitted in the rejections. Scantlin does not disclose a security element that includes a metal layer disposed between two translucent layer coatings whose transmittance in the visible spectral range is less than 10% or more specifically less than 5% but as claimed by Applicant. Specifically, translucent coating layers whose transmittance in the visible spectral range is less than 10% or more specifically less than 5% is not disclosed in Scantlin. The Examiner is relying on the doctrine of inherency. However, regarding the doctrine of inherency, the United States Court of Appeals for the Federal Circuit has stated that:

If an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.

Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art.

Rosco Inc. v. Motor Lite Co., 304 F.3d 1373, 1380 (Fed. Cir. 2002).

In col. 5, line 64 through col. 6, line 2 Scantlin discloses that the transmissivity of the cover sheets is sufficiently low to obscure the coded regions in the core sheet from view by the naked eye. This specifically refutes the Examiner's assertion that the coded regions can be seen in reflected light. Specifically, Scantlin discloses that the coded information should be "hidden from the credit card user,

who will probably not even be aware that it is there." Scantlin further discloses the cover sheets may be formed of white polyvinyl chloride. Scantlin discloses that the cover sheet transmittance is low enough to obscure the coded information from the viewer, which is clearly directly contradictory to the claimed transmissivity that allows a viewer to view the identifiers, operates by different principles, and has a different effect on the transmission of the identifiers. Also, the disclosure of white polyvinyl chloride in Scantlin does not necessarily disclose transmission in the range of less than 10% or 5% because polyvinyl chloride may be opaque. Thus, Scantlin does not inherently show the limitations of claims 1 and 2 as suggested by the Examiner.

Further, display of identifiers displayed as a watermark effect in which they appear, when viewed in transmitted light, as a positive image, and when viewed in reflected light as a negative image, is not inherently effected by Scantlin. The presence of a layer of low transmittance by itself does not have the same effect as a coating layer with sufficient transmittance to make an underlying layer visible. Transmission of a coating layer less than 10% or less than 5% by itself does not mean that identifiers under the layer are obstructed. The low transmission of the coating layers of Applicant's claimed invention are sufficient to show the clearly perceptible watermark effect and not obscure the identifiers as in Scantlin. Since Scantlin's coating layers obscure the coded regions this does not necessarily disclose viewing of the identifiers in both reflected and transmitted light. Instead, it is directly contradictory to the requirement of the claims. Thus, Scantlin does not inherently show the limitations of claims 1 and 2.

Claim 2 adds further restriction on the transmittance of the translucent coating layer in the visible spectral range of less than 5%. This further limits the visible spectral range limitation by defining a narrower range. Scantlin does not disclose that the coating layers have a visible spectral range of less than 5%. Accordingly, the anticipation rejection is unfounded and should be reversed.

Claim 3 requires that the translucent coating layers are colored, and appear white or pastel-colored in reflected light. This further limits the translucent coating layer configuration by limiting them to colored layers.

Claim 4 adds further restriction that the identifiers are introduced through ablation.

Claim 6 requires that the translucent coating layers exhibit no appreciable absorption at the wavelength of the laser radiation used for labeling. This further limits the configuration of the coating layers by defining a specific appearance of the translucent coating layers.

Claim 7 requires that the identifiers comprise personal data, such as a signature, a birth date, or a portrait. This further limits the identifiers by requiring specific information is contained on the identifiers.

Claim 8 requires that the identifiers comprise data relating to the data carrier, such as a serial number, or a validity period. This further limits the identifiers by requiring other specific information is contained on the identifiers.

Claim 9 requires that the identifiers are present in screened form. This further limits the configuration of the identifiers by determining a specific form.

Claim 10 requires that the metal layer is vapor deposited or imprinted on one of the translucent coating layers. This further limits the introduction limitation by which the identifiers are produced.

Claim 11 requires that the metal layer is vapor deposited or imprinted on a transparent intermediate layer disposed between the translucent coating layers. Scantlin does not disclose that the metal layer is vapor deposited. Accordingly, the anticipation rejection is unfounded and should be reversed.

Claim 12 requires that one or both of the translucent coating layers is provided with a protective layer that is transparent at least in the area of the identifiers. This further limits the configuration of the coating layer and its specific configuration.

Claim 13 covers a data carrier comprising a value document, such as a banknote, identification card or the like, having a security element according to claim 1. This further limits the application by which the security element is used.

Claim 14 adds further restriction that the data carrier according to claim 13 has a security element embedded in the interior of the data carrier or applied to the surface of the data carrier. This further limits the application by which the security element is used.

Claim 15 adds further restriction that the data carrier is provided with one or more further security features. This

further limits the application by which the security element is used.

Claim 19 adds further restriction that the further security features comprise luminescent, magnetic or electrical substances, or optically variable structures, such as holographic structures. This further limits the application by which the security element is used.

The rejection of claims 1 through 4 and 6 through 15 based on obviousness under Scantlin should be reversed

Each of the issues addressed below revolve around the Examiner's assertion of obviousness of the invention. 35 U.S.C. § 103 provides the conditions for patentability, and states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding

the origin of the subject matter sought to be patented. Graham v. John Deere, 383 U.S. 1, 18 (1966).

The Examiner rejects claims 1 and 2 under the assertion that Scantlin discloses all limitations of claim 1 except for a "watermark effect" and coating layers that has a visible spectral range of less than 10%, or more specifically 5%. However, the Examiner argues the structure disclosed in Scantlin will perform the watermark effect and thus claim 1 does not structurally distinguish from Scantlin. Also, the Examiner asserts that the coating layers having visible spectral range of less than 10% or more specifically less than 5% would have been obvious to a person skilled in the art because he would have reason to pursue the options within his or her technical grasp.

For the same reasons argued above, Scantlin does not hint at or suggest the limitations of the claims and there is nothing within the "common knowledge of the art" to suggest modifying Scantlin to meet the claimed limitations. Specifically, Scantlin teaches the artisan to obscure the identifiers from direct view. Accordingly claims 1 through 4 and 6 through 15 are not obvious.

Further, even if the performance of the device is comparable to Scantlin, this fact does not necessarily imply the structures are identical. Applicant's claimed invention provides a specific advantage that Scantlin's card does not offer. In Applicant's invention, the identifiers can be introduced by a laser beam at the end of the production process. For example, the identifiers can be introduced at a time when the different layers of the multilayer element are already laminated together. This allows the security element to be produced at the manufacturer's site and to be personalized at a later time at a different location. This procedure is

advantageous because the information to be stored on the element may not be known at the time of the production. For example, blank identification cards can be manufactured at a first location and then later personalized at a different location. There is no need for the ID data to be known by or transmitted to the manufacturer's site. Scantlin's card does not offer this advantage. Instead, holes are punched in the core sheet and the core sheet is then covered with the cover sheets, the information represented by the holes must be known already at production time. Consequently, Scantlin refers to preselected coded regions of the core sheet, as shown as holed in Figure 4 (col. 5, ll. 49-51).

Claim 3 requires that the translucent coating layers are colored, and appear white or pastel-colored in reflected light. This further limits the translucent coating layer configuration by limiting them to colored layers.

Claim 4 adds further restriction that the identifiers are introduced through ablation. Scantlin does not disclose identifiers that are introduced onto a metal layer by a laser beam through a local transformation of the metal into a transparent or translucent modification via ablation. There is no motivation to make such a modification. In Figure 7, Scantlin illustrates that the holes 25 which previously passed through the entire core 20, as shown in Figure 6, have been completely covered and partially filled with the cover sheets 10 and 12 and the coating sheets 24 and 26 due to the effect of heat and pressure with plastic forced into the holes (see col. 7, ll. 39-44). Scantlin further states the plastic flow of material into the holes 25 provides an identification card having greater strength by providing better bonding between the metal sheet 22, the overlying plastic layers 24 and 25 and the

cover sheets 10 and 12 (see col 7., ll 52-56). In Scantlin's card, the material of the cover sheets flows into the holes 25 when the card is laminated, thereby improving the strength of the card. Thus, because there is nothing in Scantlin to suggest this limitation and this limitation would make it impossible to achieve the hole-filling feature of Scantlin which promotes strength of the card, Scantlin does not render the claimed invention obvious.

Claim 6 requires that the translucent coating layers exhibit no appreciable absorption at the wavelength of the laser radiation used for labeling. This further limits the configuration of the coating layers by defining a specific appearance of the translucent coating layers.

Claim 7 requires that the identifiers comprise personal data, such as a signature, a birth date, or a portrait. This further limits the identifiers by requiring specific information is contained on the identifiers.

Claim 8 requires that the identifiers comprise data relating to the data carrier, such as a serial number, or a validity period. This further limits the identifiers by requiring other specific information is contained on the identifiers.

Claim 9 requires that the identifiers are present in screened form. This further limits the configuration of the identifiers by determining a specific form.

Claim 10 requires that the metal layer is vapor deposited or imprinted on one of the translucent coating layers. This further limits the introduction limitation by which the identifiers are produced.

Claim 11 requires that the metal layer is vapor deposited or imprinted on a transparent intermediate layer disposed between the translucent coating layers. Scantlin does not disclose that the metal layer is vapor deposited. Accordingly, the anticipation rejection is unfounded and should be reversed.

Claim 12 requires that one or both of the translucent coating layers is provided with a protective layer that is transparent at least in the area of the identifiers. This further limits the configuration of the coating layer and its specific configuration.

Claim 13 covers a data carrier comprising a value document, such as a banknote, identification card or the like, having a security element according to claim 1. This further limits the application by which the security element is used.

Claim 14 adds further restriction that the data carrier according to claim 13 has a security element embedded in the interior of the data carrier or applied to the surface of the data carrier. This further limits the application by which the security element is used.

Claim 15 adds further restriction that the data carrier is provided with one or more further security features. This further limits the application by which the security element is used.

The rejection of Claim 19 based on obviousness over Scantlin in view of Hurier should be reversed

The Examiner rejects claims 19 as obvious over Scantlin in view of Hurier, Security Label, U.S. Patent 5,651,615 (Jul. 29, 1997) under the assertion that Scantlin discloses all limitations of the base claim and that Hurier discloses using a

luminescent ink for indicia. The Examiner asserts it would have been obvious to provide the indicia taught in Scantlin with luminescent ink in view of Hurier to provide high forgery-proofness through excitation under ultraviolet light. Scantlin does not disclose all of the limitation of Applicant's claimed invention and Hurier does not provide the missing limitation. Therefore, this claim is not obvious and should be allowed.

CONCLUSION

The Applicants have detailed the reasons why the Examiner's rejections are improper, how they fail to identify the required suggestion to make the claimed combinations, and how the reference fails to disclose the characteristics of Applicant's invention. Applicants therefore request that the Board of Patent Appeals and Interferences find the claims to be patentable.

Date: December 13, 2010

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APPENDIX OF CLAIMS

1. (currently amended) A multilayer security element having a metal layer into which are introduced, by a laser beam through a local transformation of the metal into a transparent or translucent modification, identifiers in the form of patterns, letters, numbers and/or images, where the metal layer is disposed between two translucent coating layers, whose transmittance in the visible spectral range is less than 10%, but whose transmittance in the ~~visibe~~ visible spectral range is sufficient to allow viewing of the metal layer and identifiers under reflected light, thereby causing the identifiers in the metal layer to display a watermark effect in which they appear, when viewed in transmitted light, as a positive image, and when viewed in reflected light, as a negative image.
2. (original) The security element according to claim 1, characterized in that the transmittance of the translucent coating layers in the visible spectral range is less than 5%.
3. (previously presented) The security element according to claim 1, characterized in that the translucent coating layers are colored, and appear white or pastel-colored in reflected light.
4. (previously presented) The security element according to claim 1, characterized in that the introduction of the identifiers occurs through material ablation of the metal layer.
5. (cancelled)
6. (previously presented) The security element according to claim 1, characterized in that the translucent coating layers

exhibit no appreciable absorption at the wavelength of the laser radiation used for labeling.

7. (previously presented) The security element according to claim 1, characterized in that the identifiers comprise personal data, such as a signature, a birth date, or a portrait.
8. (previously presented) The security element according to claim 1, characterized in that the identifiers comprise data relating to the data carrier, such as a serial number, or a validity period.
9. (previously presented) The security element according to claim 1 characterized in that the identifiers are present in screened form.
10. (previously presented) The security element according to claim 1, characterized in that the metal layer is vapor deposited or imprinted on one of the translucent coating layers.
11. (previously presented) The security element according to claim 1, characterized in that the metal layer is vapor deposited or imprinted on a transparent intermediate layer disposed between the translucent coating layers.
12. (previously presented) The security element according to claim 1, characterized in that one or both of the translucent coating layers is provided with a protective layer that is transparent at least in the area of the identifiers.
13. (previously presented) A data carrier comprising a value document, such as a banknote, identification card or the like, having a security element according to claim 1.
14. (previously presented) The data carrier according to claim 13, characterized in that the security element is embedded in

the interior of the data carrier or applied to the surface of the data carrier.

15. (previously presented) The data carrier according to claim 13, characterized in that the data carrier is provided with one
5 or more further security features.

16. (withdrawn) A method for manufacturing a security element according to claim 1, in which

10 a metal layer is combined with two translucent coating layers, whose transmittance in the visible spectral range is less than 10%, such that it lies between the two coating layers, and

subsequently, the series of layers is impinged on with a laser beam to introduce into the metal layer identifiers in the form of patterns, letters, numbers and/or images.

15 17. (withdrawn) The method according to claim 16, characterized in that the identifiers are introduced with pulsed laser radiation, especially in the infrared spectral range.

18. (withdrawn) The method according to claim 16, characterized in that the wavelength of the laser radiation and the material
20 of the translucent coating layers are coordinated with each other in such a way that the laser radiation is strongly absorbed by the metal layer and substantially not absorbed by the translucent coating layers.

19. (previously presented) The data carrier according to claim
25 15, characterized in that the further security features comprise luminescent, magnetic or electrical substances, or optically variable structures, such as holographic structures.

EVIDENCE APPENDIX

There is no evidence submitted.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

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RoberPAYMENT OF APPEAL FEESCommissioner for Patents
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Alexandria, VA 22313-1450

Sir:

An appeal brief fee of \$540 is due (37 CFR 41.20(b)(2)).

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Date: December 13, 2010

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